



Report from the Design & Cost Board

Peter H. Garbincius*

on behalf of:

Wilhelm Bialowons*, Jean-Pierre Delahaye,
Atsushi Enomoto, Robert Kephart,
Alex Mueller (in absentia), Ewan Paterson,
Nan Phinney, Tetsuo Shidara*,
and Nobuhiro Terunuma



since Bangalore

- Cost Estimating Guidelines

http://www-ilcdb.fnal.gov/RDR_costing_guidelines.pdf

- Cost Estimating instructions

http://www-ilcdb.fnal.gov/RDR_Cost_Estimating_Instructions_23may06.pdf

thank you Jean-Luc, Ryuhei, & Tommy P. for helpful comments

- RDR Management Team =>

RDR Status Discussions - Tuesdays (& Mon.)

<http://ilcagenda.cern.ch/categoryDisplay.py?categId=58>

cycled through every AS, TS, GS group

- Cost Estimate Status listed:

http://www-ilcdb.fnal.gov/cost_estimate_status.pdf



You have cost estimates! (July 18)

System description	Cost Estimates received for								Regional		
	common	e-	e+	DR	RTML	ML	BDS	Exp	Am	Asia	Eur
e- Source		partial									
e+ Source			partial								
DR				d.							
RTML					partial						
Main Linac											
BDS							√ b.				
Com, Op, Reliab											
Control System	√	√	√	√	√	√	√				
Cryogenics - a.		√	√	partial	√	√	partial				
CF&S	√	√	√	√	√	√	85%b	√	√	√	√
Installation	√	√ f.	√ f.	√ f.	√ f.	√ f.	√ f.				
Instrumentation	√	√	√	√	√	√	√				
Cavities				√					√		√
Cryomodules		g.	g.	√	g.	g.			√	√	√
RF	√	√	√	√	√	√			√	√	√
Magnets & PS				d.			90%b				
Dumps & Collim	√	√	√	√	√		√				
Vacuum		c.√	√	√ d.	√	√	√				
Accel Phys											



Thank you!

- Confidentiality – for cost estimate numbers
 - Don't discuss outside your cost estimating team
 - Don't publish or post on public web-site
 - See confidentiality guidelines for this meeting:

http://www-ilcdcb.fnal.gov/vancouver_cost_discussion_guidelines.pdf

- the Cost Engineers + Barry need to discuss your cost estimates with you

schedule of **closed, invite only**, 3CE meetings

<http://ilcagenda.cern.ch/conferenceDisplay.py?confId=715>

or Vancouver LC Workshop 2006 home page

<http://vlcw06.triumf.ca/index.htm>

> Program (right) > Miscellaneous GDE Meetings



Meetings with 3 Cost Engineers

Already started! – we'd like to ask you:

If you have not already sent them,

when can we expect your cost estimates?

Briefly run through cost estimate in WBS format

What assumptions did you use?

How did you get this number?

What reviews and cross-checks did you perform?

What was the average cost factor for Production Quantities ?

Did you have any surprises in your estimate? Up or down?

Are they understood?

Were you lacking in specifications or requirements?

Did requirements substantially increase cost or complexity?

How did you optimize cost vs. performance?

Is a parametric model of the cost estimate available?

"That item seems expensive, did you consider alternatives?"

What "sanity checks"

or comparisons to costs of other projects were made?



Invitation letters also had specific questions for some groups

Wednesday:

8:30-9:15 – DR
+ RF, Cryo

11:10-12:30 – ML
+ RF, Cavities,
CM & LLRF

2:00-4:30 – CF&S

4:30-5:30 – e+ Src
+
Commissioning,
Ops, Reliability

Thursday:

9:30-9:45 – e- Src

9:45-10:00 – RTML

10:30-11:30 – BDS

+ Magnets, Dumps

11:30-11:45 Magnets

11:45-noon – Commissioning,
Operations, & Reliability

12:00-12:15 – Installation

12:15-12:30 – Instrumentation

1:30-1:45 – Cryogenics

1:45-2:00 – Controls

2:00-2:15 – Vacuum

2:15-2:30 – Accelerator Physics



Come and see us in Gage – M-1



**Bring your
cost estimates
&
backup data**





still need by September 15

- To complete the Cost Estimates including:
Cost Estimates in WBS form,
WBS Dictionary & Basis of Estimate
- Cost Engineers will be checking for:
50%-50% point for probable cost distribution,
uncertainties or upper/lower limit of estimates,
correlated cost factors, like how much steel,
copper, commercial labor, power, etc.
- add NO CONTINGENCY



- Checks between AS and TS/GS for omissions, duplications, consistency
- Don't forget testing (and facilities), lab space, infrastructure, warehousing, etc.
- Institutional in-house labor (hours) for construction phase
- R&D and proof-of-principle costs & labor
- Commissioning costs & in-house labor
- Operating costs per year & in-house labor
- Remember to post your GDE Plenary Session Presentation on Indico Agenda site (or send to Maxine@fnal.gov)



Nan Phinney – Writing the RDR

**Meeting:
Friday, July 21,
8:30-9:30 AM
Gage – M-2**

**Nan has sent
invitations to
“volunteers”**

